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Colo-colonic intususception secondary to a lipoma

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ABSTRACT

We present a case of subacute obstruction in a 49 years old lady due to colo-colonic intussusception secondary to a lipoma. We describe the difficulties in diagnosis and management of this rare cause of bowel obstruction and review the literature on adult intussusceptions.

1. Introduction

Intussusception in adults is rare accounting for approximately 1% of all bowel obstructions The majority occur at the ileocolic valve or in the small bowel. A review of current literature reveals that colo-colonic intussusception accounts for 17% of confirmed intussusceptions.[1] The majority of colonic intussusceptions are secondary to malignant lesions (63%) with the two most common being adenocarcinomas and lymphoma.[2]

They present a significant challenge because of the variety of symptoms they can present with, the diagnostic difficulties of radiological confirmation and management of the condition.

We present a 49 years old lady who presented with subacute obstruction secondary to colo-colonic intussusception due to a lipoma at the splenic flexure.

2. Case history

The patient presented with a 3 week history of diarrhoea and vomiting which had started 2 days after returning from holiday in Cyprus. An initial diagnosis of gastroeneteritis was made by her GP however she attended A and E when she developed severe generalised abdominal pain. Having received a short course of ciprofloxacin after the diarrhoea had failed to settle there was no improvement in symptoms. She continued to open her bowels 4 times a day passing large amounts of mucus and had passed blood per rectum intermittently.

Her past medical history included an appendicectomy over 30 years ago and her only medication was atorvastatin for hypercholesterolaemia. She had never smoked, occasionally drank alcohol and had no family history of any bowel pathology.

On initial assessment she was dehydrated and tachycardic with a soft non tender abdomen. Abdominal X-ray showed dilated large and small bowel loops.

Bloods on admission showed an elevated WCC of 13.4 and a CRP of 68 but all others were within normal limits. Stool cultures were sent, and the patient was treated conservatively with iv fluids and an NG tube whilst cultures were awaited.

Stool cultures were negative for Clostridium Difficile Toxin and stool electronmiscroscopy revealed no infective organisms so a CT of the abdomen was performed.

This revealed an intussusception at the splenic flexure causing large bowel obstruction. Just beyond this was a well defined fat lesion consistent with a lipomatous lesion. There was no lymphatic involvement and the liver and lungs appeared normal.

Colonoscopy was performed to assess the lesion further and attempt to reduce the intussusception however when this was not possible we proceeded to a laparotomy where a left hemicolectomy was performed. The liver was also clinically assessed with no abnormality detected. The patient had an uncomplicated recovery postoperatively and was discharged 4 days later.

Histology revealed an ulcerated polypoid tumour 60 mm from the distal end of the section. Microscopy showed a necrotic and ulcerated large bowel mucosa with underlying sub-mucosal proliferation of mature adipose tissue in keeping with the preoperative diagnosis of a benign lipoma.

3. Discussion

Intussusception is relatively common condition seen in children. By contrast adult intussusception accounts for only 5% of cases and 1% of all bowel obstructions.[1] Adult intussusception is also a different entity in that it is nearly always secondary to a pathological

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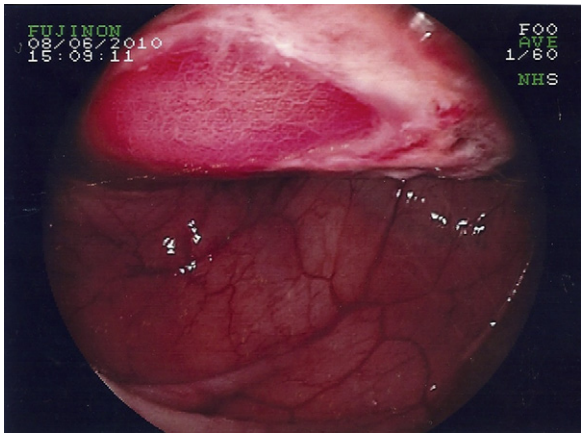

Fig. 1. Photo of intususception at colonscopy.

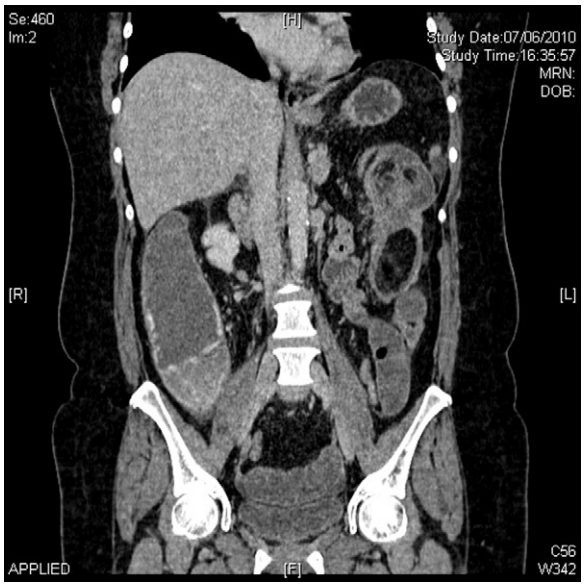

Fig. 2. Coronnal CT scan of colo-colonic intususception secondary to lipoma.

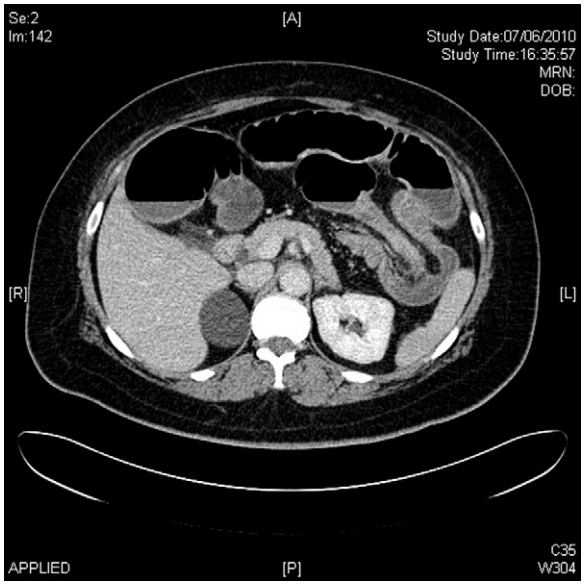

Fig. 3. Axial CT scan of colo-colonic intususception secondary to lipoma.

intraluminal lesion unlike children where the most common lead point is enlarged Peyer's patches.

Entero-enteric and ileocolic are the 2 most common sites of intussusception. Unlike the colon the majority of these are idiopathic or secondary to a benign lesion with only 20% cased by an underlying malignancy including metastasis, adenocarcinoma, GISTs and lymphoma's.[2]

Two thirds of adult colo-colonic intussusceptions are secondary to a primary colonic cancer. The remaining third are secondary to Peutz-Jehger polyps, adenomas, endometriosis, previous anastomosis and lipomas.[3] Because of the high incidence of underlying malignancy the most common place of colonic intussusception is therefore the sigmoid colon.[4]

Lipomas of the gastrointestinal tract are rare benign tumours first described by Bauer in 1757. They are more common in women with a peak incidence between 50 and 60 years old.[5]The most common site of incidence is the caecum and ascending colon. A study in the Mayo clinic showed that 94% of lipomas are asymptomatic however isolated lipomas may present with non specific abdominal pain, bleeding and constipation.[6] Most are discovered incidentally in surgical specimens removed for other bowel disorders.

Colonic lipomas cause diagnostic problems because of difficulties in differentiation between malignant and benign neoplasms in barium enemas, CT and MRI scans, These problems are exacerbated when intususception occurs due to underlying fat necrosis and are easily mistaken for malignant neoplasms. On direct visualisation with colonoscopy however a charachteristic elevated normal mucosa over the lipoma is seen and fat extrusion occurs after biopsy is taken.

The chronic or sub acute presentation of intususception often leads to diagnostic difficulty. Colicky abdominal pain, symptoms of bowel obstruction and rectal bleeding are the most common symptoms. An abdominal mass is only palpable in 24–42% of patients.[4] As discussed previously CT is the most accurate form of radiological diagnosis and although we were able to identify a lipomatous lead point it can be difficult and MRI, ultrasound and barium enema have also been used as radiological investigations (Figs. 1–3).

Colo-colonic intussusception secondary to lipomas has been reported on 37 occasions.[7–10] Because of the high incidence of underlying malignancy intraluminal reduction via colonoscopy is not advocated however was attempted in our case because we were able to confidently identify a benign underlying lesion. As this was unsuccessful we proceeded to laparotomy where a left hemicolectomy was performed with primary anastomosis. In cases where the underlying diagnosis is unknown the preferred method of treatment is en bloc resection without reduction of the intususception because of the theoretical risk of disseminating the possible underlying malignancy.

Conflict of interest statement

None.

Funding

None.

Ethical approval

Written informed consent was obtained from the patient for publication of this case report and accompanying images.

Author contributions

N. Howard is a primary author. N. Pranesh is an editor and clinician. P. Carter is a lead consultant.

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